Session # 32
Seeding Natives, Roadside Case Study
State Road 24

History

State Road 24 constructed (est.) in 1994
R-26008 Site preparation and native seeding in 2002-2003
Native seeded area from Wabash to Huntington
Trees were planted along that stretch before 2002

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Soils:

Highly compacted clay with no inert matter
Slopes: Steep compacted and dry some 5:1 where hand seeding was required.
Ditches: Wet with seasonal dry down
Flat areas: Compacted clay.

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Site Preparation

2 spray applications resulted in good weed control. Fall and spring application.
Top soiled areas (intersections) experienced weed pressures from the seed bank in the soil
Had to work around planted trees

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Seed Mix Design

Original design was in conjunction with university students.
Challenges were encountered with species availability, planting zones and needed installation techniques.
With the help of INDOT the installer and the supplier, 8 seed mixes were designed to cover the North and South slopes, flat areas, ditches and an annual seed mix. Cover crop was Oats Annual Rye Timothy and Redtop

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88 Native Species Seeded – Confirmed on Site

- Allium cernuum
- Andropogon virginicus
- Aquilegia canadensis
- Asclepias incarnata
- Asclepias syriaca
- Asclepias tuberosa
- Aster ericoides
- Aster laevis
- Aster novae-angliae
- Aster oolentangiensis
- Aster umbellatus
- Astragalus canadensis
- Baptisia australis
- Baptisia lactea
- Bidens cernua
- Bouteloua curtipendula
- Cacalia atriplicifolia
- Calamagrostis canadensis
- Carex comosa
- Carex cristatella
- Carex frankii
- Carex lupulina
- Carex stipata
- Carex vulpinoidea
- Ceanothus americanus
- Chamaecrista fasciculata
- Coreopsis lanceolata
- Coreopsis palmata
- Coreopsis tripteris
- Dalea candida
- Dalea purpurea
- Desmanthus illinoensis
- Desmodium canadense
- Desmodium illinoense
- Desmodium sessilifolium
- Echinacea pallida
- Echinacea purpurea
- Eleocharis ovata
- Elymus canadensis
- Elymus hystrix
- Elymus virginicus
- Eryngium yuccifolium
- Eupatorium maculatum
- Eupatorium perfoliatum
- Helenium autumnale
- Helianthus mollis
- Helianthus occidentalis
- Heliopsis helianthoides
- Iris virginica
- Koeleria pyramidata
- Lespedeza capitata
- Liatris aspera
- Liatris pycnostachya
- Liatris spicata
- Lupinus perennis
- Monarda fistulosa
- Monarda punctata
- Panicum virgatum
- Parthenium integrifolium
- Physostegia virginiana
- Potentilla arguta
- Pycnanthemum virginianum
- Ratibida pinnata
- Rudbeckia hirta
- Rudbeckia laciniata
- Rudbeckia subtomentosa
- Rudbeckia triloba
- Scirpus atrovirens
- Scirpus cyperinus
- Scirpus pendulus
- Scirpus validus
- Silphium integrifolium
- Silphium laciniatum
- Silphium perfoliatum
- Silphium terebinthinaceum
- Solidago juncea
- Solidago rigida
- Solidago rugosa
- Solidago speciosa
- Spartina pectinata
- Sporobolus heterolepis
- Thalictrum dasycarpum
- Tradescantia ohiensis
- Verbena hastata
- Vernonia fasciculata
- Zizia aurea

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Seed Installation

Drill seeded and hand broadcasted on the back slopes
Shoulders drill seeded in late 2002 Nov-Dec into frozen ground.
Back Slopes hand broadcast in spring 2003 –Photo July 2008

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Maintenance

No watering
No fertilizer
2 or 3 mowing's for 1 season

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Early Results

Success with the annuals that were seeded at a rate of 15 lbs. per acre. Cosmos, Gaillardia, Papaver (poppy) Red poppy was impressive.
Native seeding was considered a failure. Left photo year 4.

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The Ditch 33 species seeded

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The Ditch

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Year 4

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Year 7

Current Challenges

Erosion
Weed Control

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Erosion

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Weed Control

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Plant Diversity

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Plant Diversity

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Observations

- Some of the best native plantings happen in the toughest soil conditions. Due to lack of weed pressures
- Topsoil and watering is impractical in a large seeding like this.
- Flexibility with the agency was critical for the success of this project.
- It took a solid 10 years for this site to fill in. Typical success criteria never allows for this amount of time.
- Increasing seeding rates will not speed the process.
- 2 installation methods were successful, drilling and hand broadcasting.
- Annuals are your call. Are they worth the money? Do they prohibit critical mowing?
- The diversity of this seeding is impressive.

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